PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(PCT Rule 71.1)

	Date of mailing *(day/month/year)* 19.09.2005
Applicant's or agent's file reference 346330D21230	**IMPORTANT NOTIFICATION**

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/FR2004/001907	19.07.2004	18.07.2003

Applicant
LABORATOIRES EXPANSCIENCE

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the *PCT Applicant's Guide*.

The Applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purpose of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purpose of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA	Authorized officer
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	See Form PCT/IPEA/416
International application No. PCT/FR2004/001907	International filing date *(day/month/year)* 19.07.2004	Priority date *(day/month/year)* 18.07.2003
International Patent Classification (IPC) or national classification and IPC A61K35/78, A61K31/56, A61K7/48, A61K7/26, A61P19/02, A61P17/02, A61P1/02		
Applicant LABORATOIRES EXPANSCIENCE		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☐ *(sent to the applicant and to the International Bureau)* a total of sheets, as follows:

      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

   ☒ Box No. I Basis of the report

   ☐ Box No. II Priority

   ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   ☐ Box No. IV Lack of unity of invention

   ☒ Box No. V Reasoned statement according to Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   ☐ Box No. VI Certain documents cited

   ☐ Box No. VII Certain defects in the international application

   ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
17.05.2005	19.09.2005
Name and mailing address of the IPEA European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk – the Netherlands Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer Bayrak, S Telephone No. +31 70 340-3263

Box No. I. Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
   - ☐ international search (under Rules 12.3 and 23.1(b)).
   - ☐ publication of the international application (under Rule 12.4).
   - ☐ international preliminary examination (under Rules 55.2 and/or 55.3).

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

   Description, pages

   1-28 as originally filed

   Claims, No.

   1-13 as originally filed

   Drawings, sheets

   1/3-3/3 as originally filed

   ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)):
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes:	Claims	1-13
	No:	Claims	
Inventive Step	Yes:	Claims	1-13
	No:	Claims	
Industrial Applicability	Yes:	Claims	1-13
	No:	Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

With regard to point V.

1 Reference is made to the following documents in the present notice:

D1: XP002286368

D2: WO-A-03055462

D3: WO-A-0062789

2. NOVELTY (Article 32(2) PCT)

2.1 The present application satisfies the conditions stated in Article 33(1) PCT, the subject matter of claims 1-13 is in accordance with the criterion of novelty defined by Article 33(2) PCT:

Document D1 describes the use of a plant extract derived from lupinus albus (LU105)) for treating or preventing a degeneration of gingival connective tissues and periodontal diseases, such as gingivitis or periodontitis (see whole document). LU105 denotes lupin peptides which are hydrolyzed fractions of hydrolyzable lupin proteins. On the other hand, the lupeol described and used in the present application is a water-insoluble triterpenic alcohol. Thus, the lupin peptides (LU105) and the lupeol, which are derived from two different processes, are products which have no similarity in terms of structure or in terms of cellular action; neither of the two can contain the other. Thus, lupeol and LU 105 (lupin peptides) are two distinct products (see documents D2: page 6, lines 29-31 and D3: page 6)).

Consequently, the subject matter of claims 1-13 is novel within the meaning of Article 33(2) PCT.

3 INVENTIVE STEP (Article 33(3) PCT)

3.1 The present application satisfies the conditions stated in Article 33(1) PCT, since the subject matter of claims 1-13 involves an inventive step as defined by Article 33(3) PCT. There is no indication in the state of the art concerning the use of a lupeol-rich extract for treating or preventing connective tissue degeneration.

Consequently, the subject matter of claims 1-3 involves an inventive step as defined by Article 33(3) PCT.

4 INDUSTRIAL APPLICATION (Article 33(4) PCT)

4.1 Claims 1-13 are in accordance with the criterion of industrial application defined by Article 33(4) PCT.